

Curriculum Vitae

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Date of birth : June 9th 1948
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EDUCATION

- 1966 Baccalauréat (Sciences Expérimentales)**
Lycée Gérard de Nerval, 02200, Soissons, France
- 1971 B.Sc. Honours Degree (Chemical Physics) - Class II**
University of Manchester, Institute of Science and Technology, Manchester England
- 1985 B.A. Honours Degree (Mathematics) - Class I**
Open University, Milton Keynes, England

Additional training:

Sponsored by VG Isotech Ltd:

- 1989 Management Course:** Two days per month for a whole year.
- 1990 Marketing Course:** Two weeks of intensive training by the 'Chartered Institute of Marketing'.
- 1989-93 Company Organisation and Development:** Two days every six months over 4 years.

Software:

- Daily use of: Microsoft Word, Excel, Access and Power Point.
- Design of user interfaces for the control of various scientific equipment, data processing and reporting of results.

Languages:

Bilingual: French/English

EXPERIENCE

Marketing:

- Market research.
- Elaboration of product development strategies.
- Detailed definition of technical specifications for products to be developed.
- Quantification of costs and margins in relation to market capacity and demand.
- Evaluation of competition.
- Scientific publications, oral presentations at scientific meetings.
- Organisation and attendance at exhibitions.
- Support to and training of worldwide sales forces.
- Production of technical manuals and commercial literature (in French and English).
- Support to "After Sales Service".
- Management and coordination of external collaborations.
- Management and coordination for the development of applications as a means to extend utilisation of products into further markets.

Technical

- Feasibility studies.
- Full development of technologies to prototype stage.
- Design of software interfaces (PC's and keypads) for the control of instruments.
- Supervision of the implementation of technical specifications (internal and external mechanical, software and electronics resources).
- Preparation of patent applications.
- Preparation of test protocols.
- Test and Installation of instruments.
- "After Sales" technical support and troubleshooting.
- Remote troubleshooting and advice to operators by Modem.
- Training of test and installation engineers.
- Training of customers.

Production

- Supervision of the production of instruments.
- Control of production costs.
- Definition of Quality Control criteria.
- Training and supervision of subcontractors.
- Reliability evaluations.
- Production protocols under "clean room" conditions.

EMPLOYMENT HISTORY

Period	Position & Company	Technical domains	Experience and achievements
2000 -	Part-time position EuroVector SpA Milan Italy	Elemental Analysis High temp furnaces Autosamplers for solids and liquids Keypads, TCD's Oxidation and Reduction materials.	To complement a number of activities in Marketing, and R&D. Completion of: Design of software Interfaces for the control of instruments. Production of all technical manuals, commercial literature, and patent applications.
1995-99	Product Manager Analytical Precision Ltd Northwich Cheshire England	Isotope Ratio Mass Spectrometry Ion Optics Vacuum Technology Modems Sample preparation systems (physical and chemical conversions of samples to simple gases)	Marketing responsibilities + active role in R&D I was recruited to manage the introduction of a new product line for the company: a routine and low cost instrument for the analysis of non-radioactive isotopes in simple gases. The biomedical market was targeted for this new diagnostic tool. Product Commercialisation in Sept 96. In December 1996, I re-located in France to work in collaboration with existing laboratories. The objectives were to develop further applications and extend the use of non-radioactive isotopes into further markets. In Oct 99, the company ceased to trade.
1988-95	Product Manager VG Isotech (Fisons) Middleswich England	Isotope Ratio Mass Spectrometry	Marketing responsibilities + very active roles in R&D and Production Introduction of a New Product line Turnover in 1988 :Nil in 1993: M£1.9
1986-88	Product Engineer VG Isogas (later VG Isotech) Middleswich Cheshire England	Ion Optics Vacuum Technology Gas Chromatography Cryogenic equipment.	Full responsibility for the development and production of an interface between a Gas Chromatograph and an Isotope Ratio Mass Spectrometer. Commercialisation in 88 of a new instrument (Isochrom) + introduction of a new product line. In 89 in Chicago the Isochrom won the "R&D 100" award as one of the top 100 innovations for the year.
1983-86	Research Associate Alder Hey Children's Hospital Liverpool England Project financed by BOC Health Care, Madison, Wisconsin, USA.	Quadrupole MS Catheters, semi permeable membranes biocompatible materials miniature coil winders clean room facilities miniature valves technology.	Development of a technology for the in-vivo monitoring of blood gases. Elaboration for production protocol under "clean room" conditions. Development of micro tools, for production of the probe. I obtained one patent as the sole inventor for a micro valve of inner volumes in the nanolitres.
1981-83	Development Engineer BOC Health Care Keighley England	Quadrupole MS IR and UV absorption Opto-acoustics. Photoelectric effects NMR, Dielectric properties of materials in alternating fields.	Development of a technology for the in-vivo monitoring of anaesthetic vapours. Development of a micro-analyser for the in-vivo monitoring of Halothane. Product Commercialisation in 1983.
1979-81	Post Graduate Research in Nuclear Physics Bradford University England.	Nuclear Spectroscopy Particle Accelerators	Two nuclear reactions were studied by nuclear spectroscopy, which led to the discovery of new nuclear levels.

1975-80	Lecturer: Physics & Maths Percival Whitley College of Higher Education Halifax England	Mechanics, Optics Electrostatics & Electromagnetism Electricity, Acoustics Thermodynamics. Pure Maths, Applied Maths, Statistics	Levels taught: "A" Level, "O" Level, ONC, TEC. Tutoring of final year students.
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ORAL PRESENTATIONS AND POSTERS

- April 1980** *A study of the $^{26}\text{Mg}(t,\alpha)^{25}\text{Na}$ reaction at $E_{\alpha}=15\text{ MeV}$*
E.J. Jumeau. Annual Conference in Nuclear Physics; Manchester, England
- April 1981** *A study of the $^{10}\text{B}(^7\text{Li},p)^{16}\text{N}$ reaction at $E_{\alpha}=28\text{ MeV}$*
E.J. Jumeau. Annual Conference in Nuclear Physics; Oxford, England
- Sept 1987** *Advances in GC-IRMS measurements*
E.J. Jumeau, with R. Guilluy, J-P. Riou and C. Pachiaudi. Second German-French Colloquium "Advances in research and use of stable isotopes"; Maria Laach, Germany
- Sept 1987** *Analysis of $^{13}\text{C}/^{12}\text{C}$ ratio of nanomole bio-organic sample with on-line GC-IRMS*
E.J. Jumeau, with R. Guilluy, J-P. Riou and C. Pachiaudi. First International Symposium on Applied Mass Spectrometry in the Health Sciences; Barcelona, Spain
- May 1988** *Experiences in the application of GC-IRMS over a range of sample types*
E.J. Jumeau, with P.A. Freedman. Third German-French Colloquium "Advances in research and use of stable isotopes"; Maria Laach, Germany.
- June 1988** *New Applications in GC-IRMS*
E.J. Jumeau. ^{36}th ASMS Conference on Mass Spectrometry; San Francisco, USA
- Sept 1988** *Determination du $\delta^{13}\text{C}$ de la Frambinone*
E.J. Jumeau, with C. Schippa and G. George. 3^{eme} Congrès Nationale de la Société Française de Chimie; Nice, France
- Oct 1988** *In-vivo evaluation of a micro intravascular blood gas probe*
E.J. Jumeau, with B. Goodwin and R. Chilcoat. American Society of Anaesthesiologists; San Francisco, USA
- Oct 1988** *A micro intravascular probe for blood gas sampling*
E.J. Jumeau, with B. Goodwin and R. Chilcoat. American Society of Anaesthesiologists; San Francisco, USA
- May 1989** *Continuous Flow Dual Inlet as an improvement for IRMS and ^{13}C analysis of breath samples*
E.J. Jumeau, with R. Guilluy. Stable Isotopes in Paediatric, Nutritional and Metabolic Research; Gronigen, Netherlands
- May 1989** *Gas Chromatography Column Switching and dual inlet dynamic interface as a new improvement for IRMS and ^{13}C isotopic analysis of breath samples.*
E.J. Jumeau, with R. Guilluy, J.L. Brazier, J-P. Riou and C. Pachiaudi. Stable Isotopes in Pediatric, Nutritional and Metabolic Research; Groningen, Netherlands
- August 1989** *Gas Chromatography Column Switching and dual inlet dynamic interface as a new improvement for IRMS and ^{13}C isotopic analysis of breath samples.*
E.J. Jumeau, with R. Guilluy, J.L. Brazier, J-P. Riou and C. Pachiaudi. 2^{nd} International Symposium on Mass Spectrometry in the Health Sciences; San Francisco, USA
- Oct 1989** *Le point sur la spectrométrie de masse*
E.J. Jumeau. Isotopes stables et spectrométrie de masse dans les explorations métaboliques et pharmacologiques; Lyon, France
- Oct 1989** *Problèmes spécifiques liés aux échantillons gazeux*
E.J. Jumeau. Isotopes stables et spectrométrie de masse dans les explorations métaboliques et pharmacologiques; Lyon, France
- April 1990** *Misuse of Testosterone in sport: an approach to detection by measurement of isotopic abundance using GC-IRMS (Poster)*
E.J. Jumeau, with G. Southan, A. Mallet and S. Craig. 2^{nd} International Symposium on Applied Mass Spectrometry in the Health Sciences; Barcelona, Spain

- June 1990** *First Study of geograhic origin of Heroin and related drugs by GC-IRMS*
E.J. Jumeau with R. Guilluy, J-L. Brazier, M. Desage and H. Chandron. Diskussionstag der Arbeitsgemeinschaft Massenspektrometrie; Konstanz, Germany
- June 1990** *A Review of new applications by the technique of IRMS*
E.J. Jumeau, with C. S. Fenwick and S. Craig. Diskussionstag der Arbeitsgemeinschaft Massenspektrometrie; Konstanz, Germany
- June 1990** *On-Line Measurements of Hydrogen, Carbon, Nitrogen and Oxygen isotope ratios in the range of natural abundance by GC-IRMS.*
E. J. Jumeau, with R. Medina, K. Kempe, and H. L. Schmidt. Diskussionstag der Arbeitsgemeinschaft Massenspektrometrie; Konstanz, Germany
- April 1992** *The analysis of C₁-C₅ components in natural gas samples*
E.J. Jumeau, with S. Baylis and K. Hall. 203rd American Chemical Society National Meeting; San Francisco, USA
- April 1992** *The technical design considerations for a continuous flow GC-IRMS system*
E.J. Jumeau, with K. Hall. 203rd American Chemical Society National Meeting; San Francisco, USA
- April 1992** *On-line measurement of HD/D₂ ratios by GC-IRMS*
E.J. Jumeau, with C.S.Fenwick and K. Kempe. 203rd American Chemical Society National Meeting; San Francisco, USA
- May 1992** *The use of isotope ratio mass spectrometry for the clinical diagnosis of metabolic disorders*
E.J. Jumeau. Klinische Anwendungen in der Magnetischen Kernresonanz spektroskope und der Massenspektrometrie; Bochum, Germany
- Sept 1992** *A new technique for the isotopic analysis of micro quantites of gaseous samples*
E.J. Jumeau. Arbeitsgemeinschaft Stabile Isotope; Bayreuth, Germany
- Jan 1993** *Le couplage CG/SM isotopique: principes, contraintes d'utilisation et limites d'application*
E.J. Jumeau. Groupe de Travail Spectrométrie de Masse; Elf Aquitaine, CSTJF; Pau, France
- Sept 1993** *The Isochrom μ G: Survey of applications in the medical and pharmaceutical fields*
E.J. Jumeau. Medical Seminar; London zoological society; London, England
- Sept 1993** *Features and benefits of the Isochrom μ G in medical applications*
E.J. Jumeau. Press Conference; London, England

PUBLICATIONS

- 1988** *Design and application of a new instrument for GC-IRMS*
E.J. Jumeau, with P. A. Freadman. American Laboratory, June 1988, (114-119)
- 1990** *Carbon isotope composition of individual amino acids in the Murchinson meteorite*
E.J. Jumeau, with M.H. Engel, S.A. Macko and J.A. Silfer. Nature, vol. 348, 1st November 1990 (47-49)
- 1990** *Stable carbon isotope ratio analysis on single components in crude oils by direct GC-IRMS*
E.J. Jumeau, with M. Boroy and K. Hall. Trends in Analytical Chemistry, vol. 9 –1990, (331-337)
- 1991** *Stable carbon isotope analysis of amino acid enantiomers by conventional IRMS and combined GC/IRMS*
E.J. Jumeau, with J.A. Silfer, M.H. Engel and S.A. Macko. Analytical Chemistry –1991, Vol 63 (370-374)
- 1991** *¹³C/¹²C determinations made easy with GC-C-IRMS*
E.J. Jumeau. Laboratory Equipment Digest -May 1991
- 1991** *Gas Chromatography with MS or IRMS in studying the geographical origin of Heroin*
E.J. Jumeau, with M. Desaga. Analytica Chimica Acta, 247, 1991, (249-254)
- 1991** *Determination of $\delta^{13}\text{C}$ values of sedimentary straight chain and cyclic alcohols by GC-IRMS*
E.J. Jumeau, with D.M. Jones, J.F. Carter, and G. Eglinton. Biological Mass Spectrometry, 1991, vol. 20 (641-646)
- 1991** *Stable Carbon Isotope analysis of amino acid enantiomers*
E.J. Jumeau, with J.A. Silfer, M.H. Engel et S.A. Macko. Analytical Chemistry, vol 63, (370-374)
- 1992** *On-line purification and ¹³C isotopic analysis of CO₂ in breath*
E.J. Jumeau, with R. Guilluy and J-L. Brazier. Analytica Chimica Acta ,1992, (193-202)

PATENTS

- Aug 1987** **Capillary Switching Valve**
European Patent N° 0232581
- Sept 1987** **Method and apparatus for the determination of isotopic composition**
British Patent N° GB 8720586
European Patent N° EP/0306332/A2
United States N° 4866270
- Nov 1987** **Valve arrangement**
United State Patent N ° 4706700
- May 1988** **Method and apparatus for the determination of isotopic composition**
British Patent N° GB 8811379
European Patent N° EP/0306333/A2
United States N° 4916313
- Feb 1997** **Preparation of gaseous mixtures for Isotopic Analysis**
British Patent N° 9604037.3
International Patent N° PCT/GB97/005030
- June 1997** **A Method of Injecting a Gas into a Mass Spectrometer and Apparatus therefor.**
British Patent N° 9611820.3
International Patent N° PCT/GB97/01541

REFERENCES

<p>Dr Giorgio Sisti <i>Managing Director</i> EuroVector SpA Via Tortona, 5 20144 Milano Italy Tel : 0039 028 394 736 Fax : 0039 028 94 29 203</p>	<p>Dr Malvyn Bjørøy <i>Managing Director</i> Geolab Nor P.O. Box 5740 Fossegrenda N-7002 Trondheim Norway Tel : 00 47 73 96 40 00 Fax : 00 47 73 96 59 74</p>
<p>Mr Mike Bolshaw <i>Development Manager</i> <i>Ex Analytical Precision Ltd</i> 108, Bond Street Macclesfield Cheshire SK11 6 QR England Tel : 0044 1625 615 114</p>	<p>Dr Bernard Eastwell <i>Founder and Ex Managing Director for the VG group of companies</i> 29, Green Ridge West Dene Brighton East Sussex BN1 5LT England Tel : 0044 1273 882 169 Fax : 0044 1273 562 407</p>
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<p>Mr Yannick Poirier <i>R & D Manager</i> Elf Exploration Production CSTJF Bâtiment L21 047 Avenue Larribau 64018 Pau France Tel : 05 59 83 49 04 Fax : 05 59 83 45 66</p>	<p>Mr Gary Parks <i>Managing Director</i> Saygrove Ltd Brookhill way Catheralls Industrial Estate Flintshire CH7 8PS England Tel : 0044 1244 550 022 Fax: 0044 1244 549 843</p>
<p>Dr Herbert Tembusch <i>Managing Director</i> Isomed GmbH Birkenweg 10 65510 Idstein Germany Tel : 0049 6126 988 728 Fax : 0049 6126 988 729</p>	<p>Mr Ken Wheelhouse <i>Lecturer (retired)</i> <i>Ex: Percival Whitley College of Higher Education</i> 20, Westborough Drive Halifax West Yorkshire England Tel : 0044 1422 365 046</p>
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